(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 11 March 2004 (11.03.2004)

PCT

(10) International Publication Number WO 2004/021740 A1

(51) International Patent Classification⁷: A61F 11/08

H04R 25/00 //

(21) International Application Number:

PCT/DK2003/000528

7 August 2003 (07.08.2003) (22) International Filing Date:

(25) Filling Language:

English

(26) Publication Language:

English

(30) Priority Data: 2 September 2002 (02.09.2002) DK PA 2002 01292

(71) Applicant (for all designated States except US): OTICON A/S [DK/DK]; Strandvejen 58, DK-2900 Hellerup (DK).

(72) Inventors; and

(75) Inventors/Applicants (for US only): RASMUSSEN, Karsten, Bo [DK/DK]; CO OTICON A/S, Strandvejen 58, DK-2900 Hellerup (DK). LAUGESEN, Søren [DK/DK]; Oticon A/S, Standvejen 58, DK-2900 Hellerup (DK).

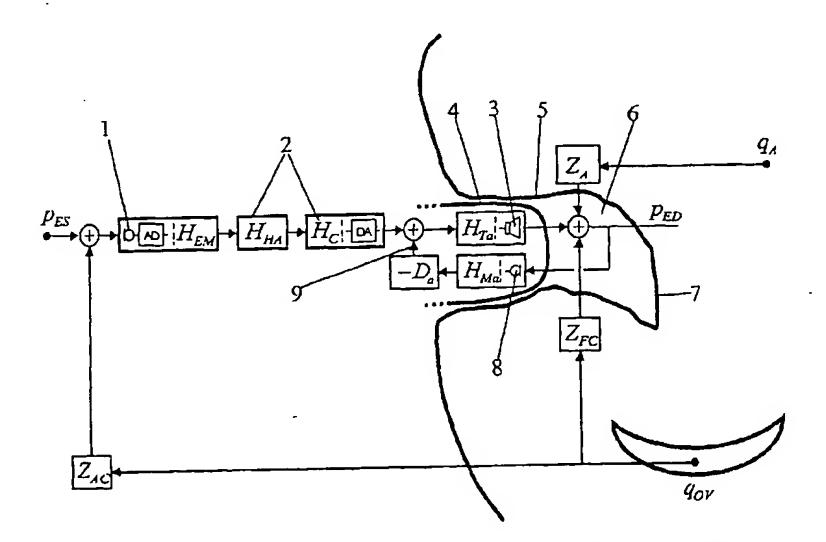
- (74) Common Representative: OTICON A/S; Strandvejen 58, DK-2900 Hellerup (DK).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR COUNTERACTING THE OCCLUSION EFFECTS



(57) Abstract: The invention concerns a method for counteracting the occlusion effect of an electronic device delivering an audio signal to the ear, like a hearing aid or and active ear protector, where the electronic device comprises a transmission path with an external microphone or input line which receives a signal from the environment and a signal processor and a receiver which receives processes signal from the signal from the signal processor and delivers sound signals to the ear, whereby an ear piece is inserted into the ear canal and totally or partially blocks the canal. According to the invention the sound conditions in the cavity between the ear piece and the tympanic membrane are directly or indirectly determined, and whenever conditions leading to occlusion problems are determined, the transmission characteristic of the transmission path to the receiver changes in order to counteract the occlusion effect.